

AMENDMENTS TO THE DRAWINGS

The two attached sheets of drawings include changes to Figs 2-5. These two sheets, which include Figs. 2-3 and 4-5, respectively, replace the original sheets including Figs. 2-5.

Attachment: Two Replacement Sheets

SUPPORT FOR THE AMENDMENT

This Amendment cancels Claims 2 and 4; amends Claims 1 and 3; adds new Claims 5-17; and amends Figs. 2-5. Support for the amendments is found in the specification and claims as originally filed. In particular, support for Claims 1 and 3 is found in the specification at least at Test Example 4 (e.g., page 30, lines 1-4, esp. line 4; see also page 16, esp. lines 27-29). Additional support for Claim 3 is found in the specification at page 19, line 29 to page 20, line 2. Support for Claims 5 and 11 is found in the specification at least at page 13, lines 1-3. Support for Claims 6-7 and 12-13 is found in the specification at least at page 9. Support for Claims 8 and 14 is found in the specification at least at page 11, lines 14-15. Support for Claims 9 and 15 is found in Claims 1 and 3, respectively. Support for Claims 10 and 16 is found in the specification at least at page 6, lines 19-21, and page 23, lines 1-5. Support for Claims 17 is found in the specification at least at page 20, lines 1-12. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 1, 3 and 5-17 will be pending in this application. Claims 1 and 3 are independent.

REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

The present invention provides a primary battery that includes a positive electrode active substance comprising particles of a nickel oxyhydroxide base compound coated with a higher oxide of cobalt. A significant increase in discharge capacity is obtained when the nickel oxyhydroxide base compound exhibits an X-ray diffraction pattern ($\text{CuK}\alpha$) where an X-ray diffraction peak at a diffraction angle around 18° has a half-width of 0.4 to 0.48.

Specification at page 3, lines 19-21; page 3, line 23 to page 4, line 4; page 6, lines 19-27;
Figs. 2-5.

Claims 1-2 are rejected under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. § 103(a) over U.S. Patent No. 6,858,347 ("Tanigawa").

Claims 3-4 are rejected under 35 U.S.C. § 103(a) over Tanigawa and further in view of U.S. Patent Application Publication No. US 2001/00009741 A1 ("Durkot").

Tanigawa discloses a paste type positive electrode containing a second active material that comprises particulate nickel oxyhydroxide coated with cobalt oxyhydroxide. Tanigawa at abstract. Tanigawa discloses that it is preferable that the oxidation number of cobalt in the cobalt oxyhydroxide in the second active material is greater than 3. Tanigawa at column 4, lines 29-31. Tanigawa discloses a powder that includes particulate nickel oxyhydroxide solid solution containing 5% by weight of zinc with cobalt oxyhydroxide carried thereon, where the quantity of the cobalt oxyhydroxide is 5% by weight to the nickel oxyhydroxide. Tanigawa at column 9, lines 3-8.

The Office Action at section 10 cites Durkot for disclosing at [0018] a negative electrode containing zinc-based particles where 10 percent by weight of the zinc-based particles are of -200 mesh size or smaller.

However, the cited prior art fails to suggest the limitation of independent Claims 1 and 3 that "the content of the higher oxide of cobalt is 0.6 to 3.6 mass% of the coated particles of the nickel oxyhydroxide base compound".

Thus, the prior art rejections should be withdrawn.

Claims 1-2 are rejected under 35 U.S.C. § 103(a) over WO 02/069420 (with U.S. Patent No. 7,344,803 used as an English-language translation)("Harada") in view of Tanigawa.

Claims 3-4 are rejected under 35 U.S.C. § 103(a) over Harada and Tanigawa and further in view of Durkot.

Harada discloses a primary cell comprising a positive electrode mixture including nickel oxyhydroxide which contains cobalt and zinc as a substitutional element for solid solution. Harada at abstract.

The Office Action at section 11 admits that "Harada does not expressly teach that particles of the nickel oxyhydroxide base compound has a surface coated with a higher oxide of cobalt".

The Office Action relies on Tanigawa for disclosing, as discussed above, particulate nickel oxyhydroxide coated with cobalt oxyhydroxide.

The Office Action at section 12 cites Durkot for disclosing at [0018] a negative electrode containing zinc-based particles where 10 percent by weight of the zinc-based particles are of -200 mesh size or smaller.

However, the cited prior art fails to suggest the limitation of independent Claims 1 and 3 that "the content of the higher oxide of cobalt is 0.6 to 3.6 mass% of the coated particles of the nickel oxyhydroxide base compound".

Thus, the claims are not *prima facie* obvious over the cited prior art.

Any *prima facie* case of obviousness based on the cited prior art is rebutted by the significant increase in discharge capacity that is achieved by the present invention by the feature of independent Claims 1 and 3 of "the particles of the nickel oxyhydroxide base compound having a **half-width** of an X-ray diffraction peak in an X-ray diffraction pattern of **0.4 to 0.48** obtained by using a CuK α line as an X-ray source". See specification at Figs. 2-5 (replacement drawings attached).

The Office Action at page 5, lines 3-5; page 6, lines 16-19; and page 7, lines 5-7, admits that the Tanigawa and Harada do not expressly disclose this feature. Durkot is also silent about this feature.

Thus, any *prima facie* case of obviousness based on the cited prior art is rebutted.

Because the claims are not *prima facie* obvious over the cited prior art, and any *prima facie* case of obviousness based on the cited prior art is rebutted, the prior art rejections should be withdrawn.

The drawings are objected to. To obviate the objection, Figs. 2-5 are amended to clearly provide the descriptive title for the y-axis of each of the graphs.

Claim 4 is objected to under 37 CFR 1.75(c) as being of improper form for failing to further limit the subject matter of a previous claim. To obviate the objection, Claim 4 is canceled.

Claims 1-4 are rejected under 35 U.S.C. § 112, second paragraph. To obviate the rejection, Claim 2 is canceled, and Claims 1 and 3 are amended.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.


Respectfully submitted,

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Attached: Replacement Drawings for Figs. 2-5